

DOCUMENT RESUME

ED 474 103

IR 058 640

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TITLE Adopting Distance Education--What Do the Students Think?
PUB DATE 2001-00-00
NOTE 14p.; In: Proceedings of the International Academy for Information Management (IAIM) Annual Conference: International Conference on Informatics Education & Research (ICIER) (16th, New Orleans, LA, December 14-16, 2001); see IR 058 630.
AVAILABLE FROM For full text: <http://www.iaim.org>.
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE EDRS Price MF01/PC01 Plus Postage.
DESCRIPTORS *Distance Education; Foreign Countries; Graduate Students; Higher Education; Nontraditional Education; *Student Attitudes; *Student Reaction; *Student Surveys; Teaching Methods; Undergraduate Students
IDENTIFIERS Australia; United States

ABSTRACT

This paper reports the results of a study of student attitudes towards distance education in the United States and in Australia. Students involved in the study included undergraduate and postgraduate students in the U.S. and postgraduate students in Australia. The study used a model for distance education adoption as a basis for the research and the study was partly aimed at validating that model. The findings from the study indicate that for most people, particularly undergraduates, distance education is not the preferred option. There are however certain students for whom it is most attractive and to some extent it seems that these students disagree with the majority who see it as falling short of the traditional classroom experience. The study has the limitation of self-selection--further work in different disciplines and cultures would be worthwhile. Includes one figure: the research model; and one table: data groups. The Distance Education Survey form is appended. (Contains 27 references.) (Author)

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ADOPTING DISTANCE EDUCATION— WHAT DO THE STUDENTS THINK?

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This paper reports the results of a study of student attitudes towards distance education in the US and in Australia. Students involved in the study included undergraduate and postgraduate students in the US and postgraduate students in Australia. The study used a model for distance education adoption as a basis for the research and the study was partly aimed at validating that model. The findings from the study indicate that for most people, particularly undergraduates, distance education is not the preferred option. There are however certain students for whom it is most attractive and to some extent it seems that these students disagree with the majority who see it as falling short of the traditional classroom experience. The study has the limitation of self-selection—further work in different disciplines and cultures would be worthwhile.

INTRODUCTION

Distance education, particularly “on-line” distance education is attracting considerable attention from both providers of education and potential students. A paper (Dick, 2000) published at IAIM last year noted significant similarities between this form of education and telecommuting—from the employer (or provider) perspective, there is the attraction of a wider pool of potential recruits (read potential students) savings on facilities and organisational infrastructure, meeting demand and changing work practices. From a student perspective, the telecommuting advantages of reduced travel, flexibility and the time to devote to other commitments (work, family etc.) are at least initially attractive. The IAIM 2000 paper proposed a model for evaluation of the potential adoption of on-line distance education. The development of this model is summarised in the “Background” section below and the model itself,

which was conceptually derived from the telecommuting literature, is provided as Figure 1 towards the conclusion of that section.

This paper reports the results of a test of the portion of the model that relates to the individual student.

BACKGROUND

The proposed adoption model (see below) was based on the benefits costs and risks associated with distance education from the perspective of both the student and the educational institution and the enablers, drives and constraints (Mokhtarian and Salomon, 1994; Tung and Turban, 1996) which provides some insight into the factors that are likely to influence the acceptance of this form of education. The proposed model included as potential benefits or drives:

- Reasons associated with travel for educational purposes, such as not having to attend on a regular basis, may reduce travel costs for the student, particularly if long distance travel is involved. In this context it should be noted that reduction of living costs maybe a significant factor for the potential student. Also, this area might be broadened to include those for whom travel would be impossible, such as those living abroad or in remote areas.
- Better able to manage one's own affairs eg. more independence, flexibility, control of the physical living environment, to pursue personal interests—particular relevance perhaps to the post-graduate student in the sense of better managing work commitments.
- The increased the possibility of education for those who may be disabled or extensively involved in the care of dependent children or other relatives.
- More attractive to those who might find the campus environment threatening or intimidating.
- To spend more time with one's family.
- Campus life offers many distractions for the student; while mostly seen as an advantage, some students may benefit from the possibility of removing themselves from these distractions.

Against these advantages, the following potential drawbacks merit consideration.

- More difficult to study at home due to less help available, motivational problems, increased family conflict and distractions—one might expect these to be serious impediments to distance education for many people, requiring particular personal attributes for them to be overcome.
- The potential feeling among distance students that those with physical access to the academic staff get enhanced help and assistance.
- Missing out on resources and occasional casual work to supplement student incomes.
- Travel is seen as a time for completing assignments, reading, study, etc.
- A significant issue for potential distance students may be the need to equip a home study area with a PC and

appropriate software, telephone line, communications software.

- Missing out on the extra-curricular activities that take place on campus could be viewed by many as a serious impediment to distance education.
- Not getting to know one's fellow students, no easy access (formal or informal) to academic staff. At a more strategic level, a diminished educational experience may result.

In addition to the above there is a long list of electronic enablers which facilitate telecommuting—PCs and laptops, printers, modems, copiers, fax machines, cellular telephones, answering machines, high speed communications links and access to e-mail and the Internet (Hotch, 1993; Tung and Turban, 1996). While clearly not all are required for educational tasks, this list is a useful starting point for the types of electronic assistance that would facilitate distance education. At present much of this equipment is made available free of charge to students in the traditional campus environment—considerable expense would be incurred by the student in equipping himself with such technology. On the other hand many universities are moving to requiring (or expecting) students to have such technology available at home.

Parallels were drawn between educational and work-place tasks—the understanding of prescribed material, assignments, experiences and acquisition of knowledge on one hand and the components of a job on the other. Using a theoretical task model to encompass the component, co-ordinative and dynamic themes of complexity (Wood, 1986), the task characteristics of uncertainty and equivocality (Daft and Macintosh, 1981) and the organisational issues of resources and scheduling of work (Thompson, 1967), a set of attributes for educational tasks was developed. It was proposed that this model form a central component of a research model for the evaluation of the suitability of educational tasks to distance education.

Considering the complexity of tasks (Wood, 1986)—in general terms as the degree of complexity rises, the task becomes less suitable (or more difficult) for distance education. Component complexity is a function of the number of distinct acts that are required to perform the task and the number of information cues to be processed in performing these acts. Component complexity is also affected by the task being dependent on completion of

other tasks. The type of task may have relevance here too—some concepts may be difficult to explain or demonstrate without “hands on” experience—for example dissection, modelling and instrument operation. Co-ordinative complexity refers to the form and strength of relationships and the sequence of inputs. Wood suggests that the more complex the timing, frequency, intensity and location requirements, the greater the knowledge and skill the individual must have to be able to perform the task. Changes in the acts and information required or in the relationships between inputs and products Wood calls dynamic complexity. This too can create shifts in the knowledge or skills required.

To illustrate, if we consider component complexity, tasks with minimal component complexity may be those such as reading a study guide, notes or a textbook and answering a series of “review” questions. At the other end of the scale, research using multiple resources, including hard copy and electronic journals, textbooks and the Internet, discussions with a colleague and writing up a summary of the research may present difficulties for the distance education student. Likewise, co-ordinative complexity could range from one person completing an assignment to working as part of a team, with each member responsible for various components and then the team having to link them together to produce a final product.

The task characteristics (Daft and Macintosh, 1981; Daft, Lengel and Trevino, 1987) of equivocality (ambiguous meanings or instructions) and uncertainty (about what is required or how to go about it) are relevant to tasks involved in distance education too—considerable difficulty might be expected to be experienced by the student if tasks are not clearly explained with no ambiguity and specified to reduce uncertainty.

Similarly, the environment in which the tasks take place (Thompson, 1967) may have some relevance to their suitability—serial dependence refers to the need to wait on others (academic or student) in order to commence or complete one’s own work. Also relevant is the degree of “networking” and team building that educational tasks are designed to include.

The personal attributes of the individual student would seem to have relevance too. These are most likely to be

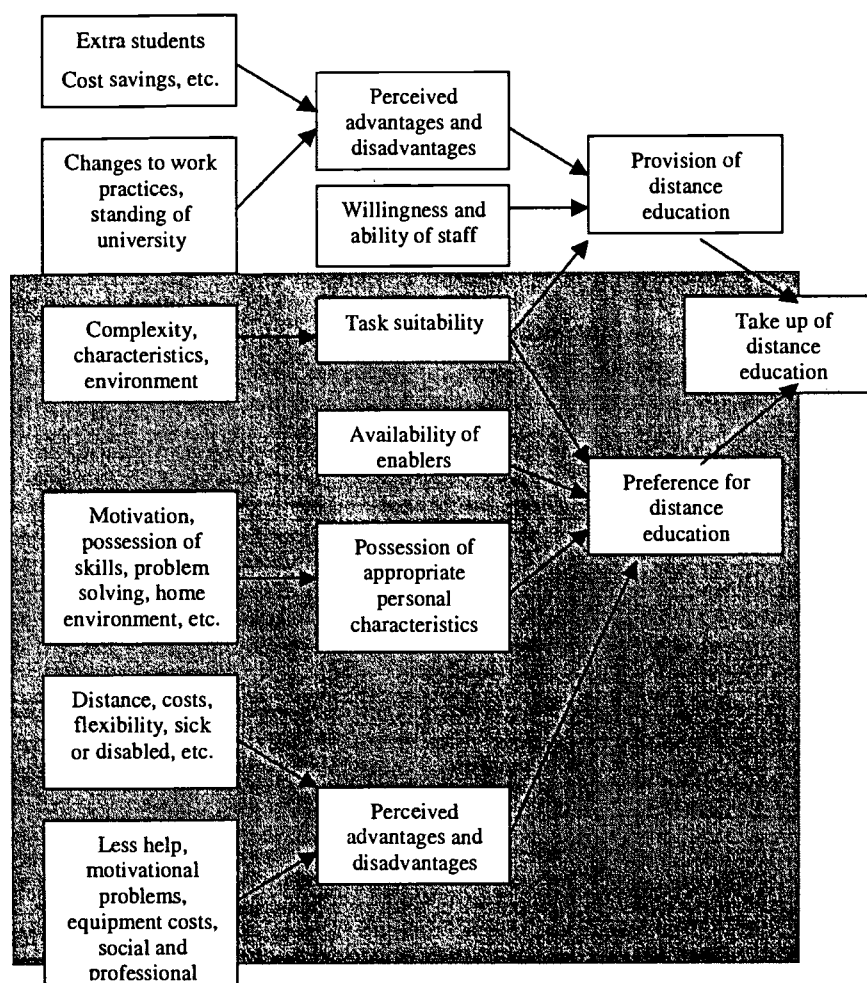
in the areas of characteristics such as the ability to get information required, knowing when advice is needed, the ability to solve one’s own problems and good self-management (Venkatesh and Vitalari, 1992; Gray, Hodson and Gordon, 1993; Wheeler and Zackin, 1994; Mokhtarian and Salomon, 1996) and the home environment (Yap and Tng, 1990; Mannering and Mokhtarian, 1995). For the distance student, knowing where to get relevant information and when to seek advice would seem to have particular importance, as does the ability to solve his own problems—the added reliance on information technology and communications equipment gives this aspect added weight. Undergraduates are more likely (perhaps than their post-graduate counterparts) to have motivational problems and will need to develop time management skills to enable work of an appropriate quality to be delivered on time. On the subject of the household environment, the telecommuting issues (Mannering and Mokhtarian, 1995) of presence of small children, number of people in the household and family orientation may also have some effect on the preference to study at a distance.

To some extent the role of the academic is analogous with that of the supervisor. As the supervisor controls allocation, timing and resources for tasks (Starr, 1971), the academic controls task content, timing and the required resources and becomes an important point of contact and resource for the student.

Telecommuting literature also provides some pointers to demographic influences on the preference to telecommute—age, gender, time in the work-place, job type, education, transport, presence of small children and the number of cars in the household (Mokhtarian and Salomon, 1997; Belanger, 1999; Dick and Duncanson, 1999)—some of these seem to have relevance to the decision to engage in distance education.

The perspective of the educational institution, plus the above issues led to the development of a proposed model to assess the likely adoption of distance education, shown in Figure 1 below. The above issues, which are grouped together as a basis for a series of constructs on the left-hand side of the model are represented as variables in the data collection instrument (see Appendix A). The research reported in this paper deals with shaded portion of the model only.

FIGURE 1
THE RESEARCH MODEL



In the distance education literature there is considerable support for the above issues - accessibility, convenience, international (or recognised) instructors and a “consumer orientation” (Alavi, Yoo and Vogel, 1997; Emmons, 1999), and the ability to continue education or keep up to date while having only limited time available due to heavy work commitments (Jana, 1999; Boisvert, 2000). Likewise, many of the potential disadvantages—there is broad support for the notion that an educational programme is far more than a curriculum and that there are benefits from a “surround interaction” between the students, the instructor and the lectures. This rich variety of interaction is likely to be lost (Bertagnoli, 2001). Others include not learning the skills to think on one’s feet, the absence of support and help, longer to develop a rapport between student and professor and cost issues related to tuition and technology (Emmons, 1999).

Attempts to measure satisfaction with distance education have been sporadic, other than the measure of enrolments and the growth in the number of institutions offering some form of distance education. One recent approach using the service industry as a base (Long, Tricker, Rangecroft and Gilroy, 2000) based the assessment largely on immediate application in the work place—not in an invalid measure, but perhaps only one of many.

THE DATA

The data collected for this study comes from five sources—although this is the first test of this model and to some extent must be considered a pilot study, the following groups, reflecting as they do different cultures, levels of study and varying experiences with distance

education, provide for considerable comparative analysis.

METHODOLOGY

The researchers designed the initial survey instrument after careful consideration of the issues raised in the literature and reflected in the above model. A copy of the instrument may be found at Appendix A. The basic structure of the survey instrument measured perceptions in the following areas.

Section	Contents
1	Advantages of distance education
2	Disadvantages of distance education
3	Education related tasks
4	Ability to undertake distance education
5	Suitability of distance education
6	Personal demographics

To check for ambiguity, its ability to be understood, and the amount of time taken to complete, a member of academic staff and 4 students completed this survey. No modifications were made to the survey instrument as a result of the review of the completed surveys.

It is recognised that the disparate data groups listed in Table 1 cannot be considered to form a homogenous group for evaluation of the model and its underlying constructs, however it is considered that it is acceptable to combine the groups for the purposes of instrument validation.

Reliability of the instrument in terms of stability was measured by test-retest surveys and in terms of construct validity by Cronbach alpha scores to determine internal-consistency reliability. This is a generally accepted procedure (Judd et al. 1991; Frankfort-Nachmias and Nachmias, 1996). There is considerable support for the use of the test-retest procedure to ensure that the answers are stable and there is minimal noise in the measurement process at the individual level. The Cronbach alpha is now the preferred measure of internal-consistency reliability for construct measurement and is performed by analysing the statements in the survey (Judd et al. 1991). In this study, both were used. 80% of the test-retest correlations were greater than .68 and all were significant at the .001 level. The Cronbach alpha scores ranged between .70 and .81 for each of the constructs, falling into the “respectable” to “very good” ranges (DeVellis, 1991).

Validity of the measurement instrument was assessed in terms of content validity, (specifically including face validity and sampling validity), empirical validity and construct validity. This methodology is in accordance with generally accepted procedure (Frankfort-Nachmias and Nachmias, 1996). Specific procedures conducted to assess each of these were:

- Face validity (a necessarily subjective assessment of the instruments’ appropriateness) was assessed and achieved by the researchers by comparing the instrument with other, similar telecommuting

TABLE 1
DATA GROUPS

Group	n	Description
A	159	Predominantly first and second year undergraduate students at a US university doing an introductory IS course
B	49	Predominantly final year undergraduate students at a US university doing a database course
C	18	MBA-type students at an Australian University doing an IS Management course face-to-face on campus
D	29	MBA-type students at an Australian University doing the same course as Group C (different instructor) via a web based education package—interaction with the instructor was largely limited to this package and email.
E	31	MBA students at a US University doing an IS Management course face-to-face on campus and others doing the same course (and the same instructor) with some students at remote locations interacting via full teleconferencing facilities

surveys and questionnaires, in particular studies based in the US.

- Sampling validity (whether a given population is adequately sampled by the measuring instrument) was provided by the distribution of the survey to all members of a class and by the researcher not following any particular bias in selection of the students to whom to distribute the survey. The large sample size in group A goes some way to ensuring sampling validity, too.
- Empirical validity was evaluated both by using measures contained within the survey to check the consistency of results.
- Construct validity was assessed by means of Cronbach alpha scores.

In order to assess the effect of each of the independent variables on the preference for distance education, linear regression was performed on the data. Also a series of non-parametric t-tests (Mann-Whitney) was conducted to identify variations in the perceptions and preferences between the different groups of students in the data.

RESULTS

Undergraduate Students

The data contained two groups of undergraduate US students, one group predominantly freshman and sophomores doing a face-to-face introductory IS course, the other predominantly seniors doing a face-to-face database course. It was hypothesised that these two groups would see the advantages and disadvantages in a similar light, but that the seniors would see more complexity, ambiguity and communication requirements in their course, which, it was expected, would make such a course seen as less suitable for distance education.

The results of a series of Mann-Whitney tests only partially support this hypothesis. While the students do see the advantages and disadvantages in a similar light (the responses to only two of the statements were significant at the .05 level) and the senior students saw much greater task complexity, ambiguity and communication and interaction requirements (7 items significant at the .05 level) the two groups viewed the tasks associated with their course as being suited to

distance education in a similar fashion. In addition this group agreed with the statement that while distance education was an acceptable instructional delivery system, it fell short of the traditional classroom experience.

In terms of the preference to undertake distance education (and most of these students disagreed with the statement that they would prefer distance education over traditional classroom based courses—a mean of 3.52 in a 5 point scale from “strongly agree” to “strongly disagree”), regression analysis, (using stepwise regression, initially computed by running each section against the dependent variable, then by running the variables that loaded against the independent variable) suggests that for this group of students, the significant elements ($R^2 = .31$) are:

- more help available on campus,
- distractions at home,
- not seeing distance education as providing long periods of concentration time,
- a diminished classroom experience, and
- the absence of computing and communications resources in the home.

Post-graduate Students—Australia

Two groups of students undertaking the same MBA-type course in Australia were included in this study. One group of students took the course in a traditional environment with a weekly discussion group facilitated by a professor, the other group completed the course by distance education, which in this context means being given a hard-copy of notes and readings (as were the face-to-face group) and then interacting with each other via an Internet-based discussion group (facilitated by a professor) and email. Both groups submitted assignment work electronically. Due to nature of the delivery of this course and the mix of students involved it is reasonable to assume that each group had either some experience or some knowledge of the other form of delivery.

The distance education group saw the advantages and disadvantages differently to the classroom based group. They felt that the advantages of being able to manage work commitments, flexibility and being able to choose the time for educational work applied much more strongly to them than the classroom based group did. They also saw the potential disadvantages of the

difficulty of studying at home, better help on campus, missing out on the professional interaction, the possible diminished classroom experience and difficult to contact the instructor all less strongly than the traditional group. These differences were all significant at the .05 level. The groups showed no differences in the way they viewed the task related activities or their abilities to undertake distance education.

Turning to the ways the two groups viewed distance education, marked variations were noted. In terms of distance education being of lesser quality than traditional classroom education, the traditional group agreed, the distance group did not ($p < .001$). The traditional group indicated they would only participate in distance education if they could not attend campus classes, the distance group disagreed ($p < .05$). The traditional group did not see the tasks as suitable for the distance education environment, the distance group did ($p < .05$). The traditional group would not encourage others to use distance education, the distance group would ($p < .05$). The traditional group did not prefer distance education and saw it as falling short of the classroom experience the distance group disagreed with both of these ($p < .001$ in both cases). For the distance group, the mean was 3.18 indicating neutrality. It is also worthy of note that the traditional group were less likely to believe they had the skills and ability to be a successful distance education student.

For the traditional group, considering the (non) preference for distance education (a mean of 4.06 in a 5 point scale, where 5 = "strongly disagree") regression analysis suggests that for this group of students, the significant elements ($R^2 = .59$) are:

- missing out on benefits available on campus, and
- not seeing the ability to choose a time for study as important.

For the distance group, considering the preference for distance education (a mean of 2.57 in the 5 point scale,) regression analysis (performed as outlined above) suggests that for this group of students, the significant elements ($R^2 = .54$) are:

- being able to concentrate for long periods on course related tasks, and
- not feeling that there is better help available on campus.

Post-graduate Students—US

The final group included in the study were two MBA classes in the US—some were taught face-to-face, others in an identical course were taught face-to-face for some students while those in outlying areas joined the class by means of video-conferencing. Again it is reasonable to assume that each group had some knowledge and/or experience of the alternative form of delivery.

This group was the group most opposed to distance education—the responses to the statement "I prefer distance education over traditional education" gave a mean of 4.1 on the 5 point scale. An examination of the data indicates that it is bi-modal with 55% choosing "strongly disagree" (5) and 30% choosing the middle of the range (3). They agreed with the statement that while distance education was an acceptable instructional delivery system, it fell short of the traditional classroom experience.

Regression analysis (performed as outlined above) suggests that for this group of students, the significant elements determining the preference for distance education ($R^2 = .85$) are:

- a diminished classroom experience,
- not seeing distance education as enabling them to better manage work commitments,
- tasks assigned typically involving many different components (complexity), and
- a preference for working on their own rather than with other students.

Further analysis will be conducted on this group in an attempt to explain these general findings, perhaps due to the small sample size and the bi-modal distribution.

CONCLUSIONS, LIMITATIONS, AND FURTHER RESEARCH

For undergraduate students, distance education is very much a second option, at least in the US environment. While it might suit a small group of students who have the skills, resources and perhaps the need to not attend campus classes, by and large they will miss the help and interaction available there and would incur considerable expense in setting up the necessary computing and telecommunications equipment.

The Australian group clearly demonstrates different perceptions of distance education, based on one's desire for it. The findings are almost completely reversed for the two groups involved in the one course—one group who have chosen to study by distance have chosen it for almost the same reasons as the other group chose to study in a more traditional manner, just a different perception of these reasons.

It is perhaps worthy of note that there is a widespread belief that one should not have to pay as much for distance education as for traditional campus based education and that universities see distance education as attractive because it provides additional revenue without the need for additional resources. This finding holds true for even the group of Australian distance students who expressed a preference for distance education.

An obvious limitation of this study has been the degree of self-selection in the data. Clearly, the students involved in the study have chosen courses that suit them, their skills and their attributes. However, this limitation in itself is useful, demonstrating that students will choose the best option for themselves and adding weight to the belief or conjecture that not all courses are suited to all types of students.

The study does support the model to a considerable degree. The high R^2 scores from the regression analysis suggest that the measurement items are valid for the constructs and that the constructs being tested lead to determining the preference for distance education. More work is necessary in this area, covering a wider range of courses, cultures and students. The authors would welcome collaborating with other researchers to conduct studies in other disciplines and countries.

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APPENDIX A

DISTANCE EDUCATION SURVEY

1. Please indicate the extent to which you agree that the following potential advantages of distance education apply to you:

	Strongly Agree	-> -> -	->->-	->->-	Strongly Disagree
a. Distance education allows me to reduce travel and commuting costs.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. Distance education allows a reduction in living costs due my ability to live at home, not on campus.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. Distance from home would make class attendance on campus impossible.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. I am better able to manage work commitments by not being required to attend class on campus.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. Distance education enables me to complete class work if disabled or taking care of dependents.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f. I find the campus environment intimidating or undesirable.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g. Personal reasons such as family, flexibility make distance education attractive to me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

	Strongly Agree	-> -> -	->->-	->->-	Strongly Disagree
h. Fewer distractions for me at home allows me to be a productive distance education student.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
i. Being able to choose the time to study and work on assignments is important to me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Please indicate up to 3 of the above that you see as the most and least important:

	Most important	Least important
1 st	_____	_____
2 nd	_____	_____
3 rd	_____	_____

2. Please indicate the extent to which you agree that the following potential disadvantages of distance education apply to you:

	Strongly Agree	-> -> -	->->-	->->-	Strongly Disagree
a. I would find it more difficult to study at home due to less help, motivational problems, increased family conflicts, distractions.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. I feel that there is better help for me available on campus.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. I would miss out on benefits available on campus—resources, possible employment, etc.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. The cost of procuring the necessary distance education equipment for my home would be expensive for me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. I would miss out on the extra-curricular activities available on campus.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f. Missing out on the professional interaction with one's fellow students would be a concern to me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g. There would be a diminished classroom experience—less discussion, interaction with professors.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
h. I find it very difficult to contact the instructor.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Please indicate up to 3 of the above that you see as the most and least important:

	Most important	Least important
1 st	_____	_____
2 nd	_____	_____
3 rd	_____	_____

3. Thinking about your academic work, please indicate your degree of agreement with the following statements as they typically concern course related tasks you have to complete (study, assignment work, exam preparation etc.):

	Strongly Agree	-> -> -	->->-	->->-	Strongly Disagree
a. The final product of the tasks that I am assigned typically involves the completion of many different components.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. My tasks often require me to work with fellow students.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. Sometimes the task deliverables change over the duration of the assignment (e.g., the instructor adds or deletes one or more components).	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. Tasks I am given are not always clear and may be interpreted in different ways.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. I am often uncertain about what to do to complete the final product.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f. The tasks I am assigned are often dependent on at least one other student completing his work first.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g. The task deliverables are clear, but can be accomplished in a number of ways.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
h. I would typically rather work on my own, than with other students.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
i. The tasks I am assigned require minimal resources (e.g. software, library, etc.).	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
j. The tasks I am assigned allow me to work at my own pace.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
k. Assigned tasks require long periods of concentrated attention.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
l. Distance education enables me to concentrate on course related tasks for long periods.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
m. "Due dates" for tasks assigned are clearly stated.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
n. There is a need for a considerable degree of communication with my fellow students.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
o. There is a need for a considerable degree of communication with academic staff.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

4. Thinking about your ability to study via distance education, please indicate your degree of agreement with the following statements:

	Strongly Agree	-> -> -	->->-	->->-	Strongly Disagree
a. I am capable of making good decisions about the tasks I am assigned.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. I know where to get the relevant information I need to complete the assigned tasks.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

	Strongly Agree	-> -> -	->->-	->-> -	Strongly Disagree
c. I have no difficulty determining when I should seek advice.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. I am good at self management, possessing the motivation, time management, etc. that is needed to deliver quality work on time.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. I have the computing and communications resources I need to be an effective distance education student.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

5. Please indicate the extent of your agreement with the following statements:

	Strongly Agree	-> -> -	->->-	->-> -	Strongly Disagree
a. Distance education is of lesser quality than traditional class-room-based campus education.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. I only participate in distance education because I can't attend campus classes.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. The tasks associated with my course are suitable for the distance education environment.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. I should not have to pay as much for distance education as for traditional campus based education.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. I would encourage most professionals to participate in distance education.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f. Instructors should not assign the same tasks to distance based students as they assign to campus based students.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g. Distance education courses are designed with the distance student in mind.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
h. I believe I have the skills and ability to be a successful distance education student.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
i. Distance education is attractive to Universities because it provides additional revenue without the need for additional resources.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
j. I prefer distance education courses over traditional classroom based courses.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
k. Distance education is an acceptable instructional delivery system, but it falls short of the traditional classroom experience.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

6. Please provide the following general information about yourself:

1. Are you :

☐ Male ☐ Female

2. In which age group are you?

☐ 20 or younger ☐ 21 - 25 ☐ 26 - 30 ☐ 31 - 40
☐ 41 - 50 ☐ 51 - 60 ☐ over 60

3. Postcode/Zip code Home Work (or country if overseas.....)

4. What is your education level? (*Indicate highest level, excluding current courses of study*)

- ☐ High school ☐ Technical certificate or diploma
☐ University graduate ☐ Post-graduate ☐ Other (please specify) _____
Year completed? _____

5. Which of the following best describes your current work?

- ☐ Manager/Administrator ☐ Administrative support
☐ Professional ☐ Technical
☐ Supervisor ☐ Clerical
☐ Services/Repair ☐ Customer enquiry
☐ Sales/Marketing ☐ Education
☐ Other (Please specify) _____

6. How many people in your household (including yourself) fall into each of the following age groups:

_____ Under 2 years old _____ 2 - 5 years old _____ 6 - 15 years old
_____ 16 - 20 years old _____ 21 - 65 years old _____ over 65 years old



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EFF-089 (5/2002)